

AMENDMENTS TO THE SPECIFICATION:

Page 1, amend paragraph [0003] as:

[0003] With the development of biotechnology, the application of biotechnology is not limited to the research work in laboratory anymore. In clinical field, the process of prevention, identification, and even the treatment of diseases are also combined with the advanced molecular biology techniques for optimal performance. Utilization of biotechnological methods to improve crops and the livestock [[are]] is a routine practice. Furthermore, in combination with digital system systems, individual biological features are converted into digital signals and utilized[,] in areas such as switching on household appliances by the one's voice or the utilization of individual fingerprints or irises for security identification. The application of biotechnology to daily life matters is an inevitable trend for the future.

Pages 1-2, amend paragraph [0004] as:

[0004] Nucleic acids, Ribonucleic acid (RNA) and Deoxyribonucleic acid (DNA) contains contain essential hereditary information. RNA and DNA are long polymers consisted of only 4 nucleotides, adenine (A), guanine (G), cytosine (C) and thymine (T) for DNA (or uracil (U) for RNA). The nucleotide structure can be broken down into 2 parts, the sugar-phosphate backbone and the base. All nucleotides share the sugar-phosphate backbone. The 3'-hydroxyl group on the ribose unit, reacts with the 5'-phosphate group on [[it's]] its neighbor to form a chain structure. A, T, G and C are capable of specific-pairing to form a double strand. Adenine forms two hydrogen bonds

with thymine in DNA (uracil in RNA) and cytosine forms three hydrogen bonds with guanine. That is, T will bond to A only and G to C only.

Page 2, amend paragraph [0006] as:

[0006] Two identification methods are commonly used nowadays. One is the utilization of the unique features of the merchandise, and another way is to label or mark objects with specific taggants. Traditional taggants take advantage of physical or chemical properties of materials. For example, magnetic strips on checkbooks, laser holographs on credit cards, fluorescent [[ink]] inks on stocks, and heat-sensitive inks are widely seen. However, those labels can be easily mimicked and destroyed.

Page 3, amend paragraph [0009] as:

[0009] A primary object of the present invention is to provide a method of marking solid or liquid substance with nucleic acid for anti-counterfeiting and authentication, in which nucleic acids are dissolved in a water-insoluble medium and forms to form a homogenous solution.

Page 3, amend paragraph [0011] as:

[0011] Still an object of the present invention is to provide a method of marking solid or liquid substance with nucleic acid for anti-counterfeiting and authentication, in which the nucleic acid taggants are not easily damaged and erased in the water-insoluble medium.

Page 3, amend paragraph [0013] as:

[0013] In the case of making a water insoluble liquid with nucleic acid for anti-counterfeiting and authentication, a similar method to the above mentioned but with little difference is provided. A nucleic acid is dissolved in an aqueous solution to form a first mixture. The first mixture is mixed with an intermediate solution to form a second mixture. The second mixture is mixed with a water insoluble solvent to form a homogenous third mixture. The intermediate solution increases the miscibility between the nucleic acid solution and the water insoluble solvent.

Page 4, amend paragraph [0018] as:

[0018] The first solvent used herein [[is]] to dissolve the water-insoluble medium comprises an organic solvent. As used herein, the first solvent is selected from a group consisting of chloroform, dichloromethane and benzole solvent, such as xylene or toluene. However, other organic solvent known in the related art may also be used.